											DQA:	D	ate:	
NCR: Y	es / No				WORK ORDER NON-C	100	NFORM	MANCE / UP	DATE				_4	
	•			-					·		QA Closed:	U	ate:	
Work Orde	ė.				DISPOSITION			AGAINST DEPARTMENT/PROCESS						
WOIR OIGE	'	· , · · · · · · · · · · · · · · · · · ·			Rework	1		Skid-tube	Crosstube	٦		Water Je	t	Engineering
Part N	lo.				Scrap	1	1	Machining	Small Fab	٦	Pro	d. Eng. Coor		Quality
	•				Use-as-is	]	Therm	noforming	Finishing		Rec/Stor	e/Packaging	3	Other
NCR N	lo				Work Order Update	]		Large Fab	Composite	_		Supplie	r	
Root				Descri	ption of work order update		nitial	Act	tion	T	Sign &			
Cause	Date	Step	Qty	(	or Non-conformance	Ch	ief Eng	Desc	ription		Date	Verification	on	QC Inspector
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Equip/Tooling						1								
Operator	_									ı				
Material											i			
Setup		ŀ								l				
Other		ļ ģ				l				1				
Process										١				
Supplier											i			
Training										١				
Unapproved					<del>.</del>									
					F	AUL	T CATE	GORY						
Landin	ng Gear		· · · · · · · · · · · · · · · · · · ·		General		_							-
	Bending				Bend		Grain			J٥	Ovalized			Pressure/Forced
	Centre N	ot Concei	ntric to (	o/s	BOM/Route		Hardwa	re		J	Over/Under	tolerance	L	Temperature/Cure
	Cracks				Broken/Damaged		Inspecti	on Incomplete			Part Incorrec	it ·		Weld
	Crushed/	Crimped			Burrs		Instruct	ions Incomplete/I	Unclear	]	Part Lost/Mi	ssing		Wrong Stock Pulled
	Cuffs				Contamination		Mainte	nance		_]{	Part Moved			
ſ	Heat Trea	at			Countersink		Mislabe	led		_],	Positioned W	/rong		_
	Inspectio	n Strip in	Tube		Cut Too Short		Misreac	l			Power Loss/S	Surge		Other
1	Ripples in	n Bend			Drill Holes	Г	Offset		_	_				

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

Folio

March-14-13 8:16:06 AM

Quality Control

Page 2

Item ID: Revision ID: Item Name:	D2002-015 Knob		,	Accept	*N900040	ገ1በበ*	Setup Start Stop	*NS1* *NS2*
Start Date: Required Date Reference:	3/14/13 : 3/28/13	Start Qty: 8.00 Req'd Qty: 8.00	*8* *8*		Cust Item ID: Customer:			IV.7/
Approvals:	Process Pla	an:	Date:		Date:	•	Run Start Stop	*NR1* *NR2*
Sequence ID/ Work Center I 120 *170* QC Quality Control	D	Operation Description QC8- Inspect parts - secon	nd check	Set Up/ Run Hours 0.00	Tool ID Tool #	Plan Accept Code Qty	Qty N	Reject Insp.
*130 *130* Packaging Packaging		Identify as per dwg & Stoo Memo	ck Location:	0.00			3/4/3	(20)
*140 *140*		QC21- Final Inspection - V	Work Order Release	0.00			13/4	1/3

N 13-04-3

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										DQA:	Da	te:	
NCR: Y	res / No				WORK ORDER NON-C	ON	NFORM	MANCE / UPI	DATE	QA Closed:	Da	te:	
					DISPOSITION				AGAINST DE				
Work Orde	er:				Rework			Skid-tube	Crosstube	Water Jet			Engineering
Part N	10.						Small Fab Finishing	4	d. Eng. Coor.	Н	Quality Other		
NCR N	No				Use-as-is Work Order Update		Thermoforming Finishing Rec/Store/Packaging C Large Fab Composite Supplier			Other			
Root					ption of work order update	ı	nitial		tion	Sign &			
Cause	Date	Step	Qty	•	or Non-conformance	Chi	ief Eng	Descr	ription	Date	Verification	n	QC Inspector
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Other	_												
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Supplier		-											
Training													
Unapproved						<u> </u>						Ĺ	
						AUL'	T CATE	GORY					
Landir	ng Gear				General	_	l		<b>Γ</b>	1	•		
	Bendin			_	Bend	-	Grain		<u> </u>	Ovalized			essure/Forced
•	<b>—</b>	Not Conce	ntric to	o/s	BOM/Route	$\vdash$	Hardwa			Over/Under		_	mperature/Cure
	Cracks			-	Broken/Damaged	-	•	on incomplete	<u> </u>	Part Incorred	1		eld
	_	d/Crimped			Burrs	-		ons Incomplete/U	Unclear	Part Lost/Mi	ssing	Шw	rong Stock Pulled
!	Cuffs				Contamination	Н	Mainte		<u> </u>	Part Moved			
	Heat Tr			<u> </u>	Countersink	Щ	Mislabe	led		Positioned V	_		
	Inspect	ion Strip ir	1 Tube		Cut Too Short	Ш	Misread			Power Loss/	Surge	Ot	her
	Rinnles	in Rend		1	Drill Holes	1 1	Offset						

Out of Calibration

Out of Sequence

Outside Dimensions

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Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

Folio

## **Picklist Print**

March-14-13 8:16:10 AM

Work Order ID: 98570

D2002-015

Parent Item Name: Knob

\*98570\*

\*D2002-015\*

**Start Date:** 3/14/13

Required Date: 3/28/13

Start Qtv: 8.00

Required Qty: 8.00

**Comments:** 

Parent Item:

IPP C00.05.18Added inspection level 8EC

IPP Rev:D Now on Doosan Lathe JLM Verified By:EC

Component Item ID/	Replacement Mfg/	Bin Primary	Last	Route	Unit of	Qty on	Qty per Kit	Total	Qty	Date	Status
Item Name	Item ID / Purch	Item Location	Location	Seq ID	Measure	Hand		Otv	Issued	Issued	Status
MDCI DIND 1 2600			-								*
MDELRINR1.2500	urchased	No			f	15.0070		0.4			OAS
*MDF/RIN	√Ŕ1 <i>2≴</i> 00*						**	$\mathcal{A}_{S}$	1-6	1-17	13
DELRIN ROUND BAR 12								. <del>3.</del> . ~		_دسر_ا	9-89

MoelRink 1.500
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<b>Location</b>	Loc Qty	Loc Code
MAT018	15.007	
119133	1.84	
121971	0.06	
122582	9.107	
124382	4	

121971

Page 1

DQA: \_\_\_\_ Date: \_\_\_\_

NCR: Yes / No

## **WORK ORDER NON-CONFORMANCE / UPDATE**

									QA Closed:	Date:	
Work Orde	··				DISPOSITION		-	AGAINST DE	PARTMENT	/PROCESS	
Part N		· · · · · · · · · · · · · · · · · · ·	,		Rework Scrap	- 1	Skid-tube Machining	Crosstube Small Fab	4	Water Jet d. Eng. Coor.	Engineering Quality Other
NCR N	o	····			Use-as-is Work Order Update	Inen	moforming Large Fab	Finishing Composite	Rec/Stor	re/Packaging Supplier	- Other
Root				Descri	ption of work order update	Initial	Ac	tion	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Chief Eng	Desc	cription	Date	Verification	QC Inspector
Doc/Data											
quip/Tooling											
Operator											
<b>Material</b>											
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Other											
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					F.	<b>AULT CATE</b>	GORY				
Landin	g Gear				General				_		_
	Bending				Bend	Grain			Ovalized		Pressure/Forced
[	Centre No	ot Conce	ntric to	o/s	BOM/Route	Hardw	are		Over/Under	tolerance	Temperature/Cure
	Cracks				Broken/Damaged	Inspec	tion Incomplete		Part Incorred	ct	Weld
[	Crushed/	Crimped			Burrs	Instruc	tions Incomplete/	'Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled
	Cuffs				Contamination	Maint	enance		Part Moved		_
	Heat Trea	at			Countersink	Mislab	eled		Positioned V	Vrong	_
Γ	Inspectio	n Strip in	Tube		Cut Too Short	Misrea	d		Power Loss/	Surge	Other
	Ripples in	Bend			Drill Holes	Offset					
Ī	Torque W	/aves in E	xtrusio	n 🗀		Out of	Calibration				
Ī	Turning S	equence			Finish	Out of	Sequence				
	Wave/Tw	ist in Tul	ре		Folio	Outsid	e Dimensions				

DART AEROSPACE LTD	Work Order:	98570
Description: Knob	Part Number:	D2002-015
Inspection Dwg: D2002-015 Rev: A		Page 1 of 1

## FIRST ARTICLE INSPECTION CHECKLIST

	FIR	ST ARTICLE	INSPEC.	TION CH	HECKLIST		
		X First Ar	ticle	Pro	ototype		
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method o		Comments
1.250	+/-0.010	1,254			5/-	1 1/2	14
0.194	+0.005/-0.000	-196					
0.625 x 0.220	+/-0.010	625 X .220					
0.063 x 45°	+/-0.010 x 0.5°	.063248					-
0.032/0.040	+/-0.008	.037					****
0.390/0.400	+/-0.010	392		· · · · · · · · · · · · · · · · · · ·	<del>-1</del> ₹		
R0.375	+0.005/-0.000	R.375			R.G.		
Measured by:	\$ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	Audited by:		AS )4 -89	Prototype	Approval:	N/A N/A
Rev Date			(), -	1 ' 6			
A 08.09.05	Change New Issue	<del></del>	· · ·	<del></del>		Revised by KJ/DD	

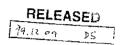
				DQA:
NCR:	Yes /	No No	WORK ORDER NON-CONFORMANCE / UPDATE	

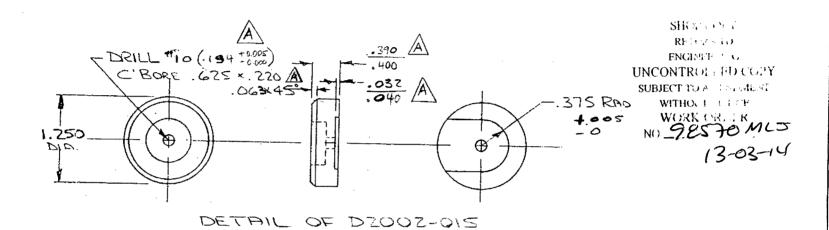
NCR: YE	25 / 100				WORK ORDER WOIN-	CONFOR	INIAINCE / OF	DATE	QA Closed:	Date	:
Work Order					DISPOSITION			AGAINST DE	PARTMENT	/PROCESS	·
Part No					Rework Scrap		Skid-tube Machining	Crosstube Small Fab	-	Water Jet d. Eng. Coor.	Engineering Quality
NCR No	0			····	Use-as-is Work Order Update	The	moforming Large Fab	Finishing Composite	Rec/Sto	re/Packaging Supplier	Other
Root				Descri	ption of work order update	Initial	Ad	ction	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Chief En	g Desc	cription	Date	Verification	QC Inspector
oc/Data						1					
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Other	_	į	1			i					
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Landing	_				General			<u> </u>	Ovalized	Г	Pressure/Forced
-	Bending			<u> </u>	Bend	Grain			Ovanzed Over/Under	talaransa	Temperature/Cure
-	Centre No	ot Concei	ntric to C	" <sup>5</sup>	BOM/Route	Hardv		-	-1	<u> </u>	Weld
F	Cracks	C		-	Broken/Damaged	<del></del>	tion incomplete	/Unclose	Part Incorre Part Lost/M	<u></u>	Wrong Stock Pulled
-	Crushed/	Crimpea		<b>-</b>	Burrs	$\vdash$	ctions Incomplete, tenance	Onclear	Part Moved	issuid [	
	Cuffs	. 4		-	Countarion	Mislat			Positioned V	Vrong	
-	Heat Trea		Tub-	$\vdash$	Countersink	$\vdash$		<del> </del>	Positioned v	· · -	Other
-	Inspection	•	rube	<u> </u>	Cut Too Short Drill Holes	Misre Offset		L	Jrower coss/	ouige _	Tottlei
-	Ripples in		<b>.</b>		╡		f Calibration				
F	Torque W			' <b> </b> -	Drawing	$\vdash$					
-	Turning S			-	Finish	<del></del>	f Sequence				
ŀ	Wave/Tw	ist in Tul	oe ec		Folio	I JOUTSIG	de Dimensions				

Date:

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Wave/Twist in Tube





MIF: BLACK DELRIN OR ABLACK UHMW PER D2689



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		Á	REVISION	PRYT CODE SHALL BE PER HAS \$222 OTY PEOLIPED PARTINO, ITEM DESCRIPTION MATERIAL ST	PEC_/VE/EDIOR	0				
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Work Order:						ı	DISPOSITION		AGAINST DEPARTMENT/PROCESS								
Part No							Rework Scrap Use-as-is Work Order Update			Skid-tube Crosstube  Machining Small Fab  Thermoforming Finishing  Large Fab Composite			Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier			Engineering Quality Other	
Root	T				Desc	rip	tion of work order update		Initial	Act	ion	Т	Sign &		$\neg$		
Cause		Date	Date Step Qty			or Non-conformance		Cr	nief Eng	Description			Date	Verification	n L	QC Inspector	
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	-	Bending			_	Bend BOM/Route Broken/Damaged Burrs Contamination Countersink		Grain		-	Ovalized				Pressure/Forced		
	-	Centre Not Concentric to O/S Cracks Crushed/Crimped Cuffs Heat Treat						_	Inspection Incomplete Instructions Incomplete/Unclear Maintenance			_	Over/Under tolerance Part Incorrect Part Lost/Missing			Temperature/Cure	
	_							_				_				Weld	
								_								Wrong Stock Pulled	
	_							_					Part Moved				
	-								<u> </u>				Positioned Wrong				
	Inspection Strip in Tube Ripples in Bend Torque Waves in Extrusion Turning Sequence Wave/Twist in Tube						Cut Too Short						Power Loss/Surge O			Other	
						$\neg$	Drill Holes	$\vdash$	Offset Out of Calibration Out of Sequence								
							Drawing 	<u> </u>						<u> </u>	—	· · · · · · · · · · · · · · · · · · ·	
							Finish - ··	$\vdash$									
•						- 1	Folio	Outside Dimensions									

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